

**V1**  
**RCV2**  
*R e m o t e   C o n t r o l l e r*

**U s e r ' s   M a n u a l**

**Version 1.2**

**(11/2002)**

**Doremi Labs, Inc.**  
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USA

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## Warranty

Doremi's warranty obligations are limited to the terms set forth below:

Doremi Labs, Inc. ("Doremi") warrants this hardware product against defects in materials and workmanship for a period of ONE (1) YEAR from the date of original retail purchase.

If you discover a defect, Doremi will, at its option, repair, replace, or refund the purchase price of this product at no charge to you, provided you return it during the warranty period, with transportation charges prepaid, to the authorized Doremi distributor from whom you purchased it or to any other authorized Doremi distributor within the country of original retail purchase. (You can obtain additional information by contacting Doremi at the address printed on this certificate). To each product returned for warranty service, please attach your name, address, telephone number, and a copy of the bill of sale bearing the appropriate Doremi serial numbers as proof of date of the original retail purchase.

If your product fails during the warranty period while you are out of the country of original retail purchase, you may have it repaired (no refunds or replacements are provided) at your expense by an authorized Doremi distributor in the country in which the product failed. You may obtain a refund for the repair costs by submitting a claim to Doremi (instructions are obtained by contacting Doremi at the address printed on this certificate).

This warranty applies only to hardware products manufactured by or for Doremi that can be identified by the "Doremi" and "V1" trademark, trade name, or logo affixed on them. Doremi software is warranted pursuant to a separate written statement packed with the software. Doremi does not warrant any products that are not Doremi products. This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication; if the product has been modified without the written permission of Doremi; or if any Doremi serial number has been removed or defaced.

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DOREMI IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWNTIME, GOODWILL, DAMAGE TO OR REPLACEMENT OF EQUIPMENT AND PROPERTY, AND ANY COSTS OF RECOVERING, REPROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH DOREMI PRODUCTS.

## **WARNING**

**THIS APPARATUS MUST BE EARTHED**

## **IMPORTANT**

## **WARNING**

Power requirements for electrical equipment vary from area to area. Please ensure that your RCV2 meets the power requirements in your area. If in doubt, consult a qualified electrician or Doremi Labs, Inc. dealer.

INPUT: 100 – 240V ~ 1.0A MAX 50-60Hz, 18-28VA

## **AVIS**

Le voltage peut differer d'un pays a l'autre. Il faut que le RCV2 soit ajuste au voltage du pays.

LA SOURCE DE PUISSANCE DOIT AVOIR UN CONDUCTEUR CONNECTE A LA TERRE.

Toutes reparations doivent etre effectuees par une personne qualifiee.

AFIN D'EVITER UN CHOC ELECTRIQUE, VEUILLEZ NE PAS ENLEVER LE CAPOT.

## **PROTECTING YOURSELF AND THE V1**

Never touch the AC plug with wet hands

Always disconnect the RCV2 from the power supply by pulling on the plug, not the cord.

Allow only a Doremi Labs, Inc. dealer or qualified professional engineer to repair or reassemble the RCV2. Apart from voiding the warranty, unauthorized engineers might touch live internal parts and receive a serious electric shock

Do not put, or allow anyone to put any object, especially metal objects into the RCV2.

Use only an AC power supply. Never use a DC power supply.

If water or any other liquid is spilled into or onto the RCV2, disconnect the power, and call your dealer.

Make sure the unit is well ventilated, and away from direct sunlight.

To avoid damage to internal circuitry, as well as the external finish, keep the RCV2 away from sources of direct heat (stoves, radiators, etc.).

Avoid using aerosol insecticides, etc. near the RCV2. They may damage the surface, and may ignite.

Do not use denatured alcohol, thinner or similar chemicals to clean the RCV2. They will damage the finish.

Modification of this equipment is dangerous, and can result in the functions of the RCV2 being impaired.

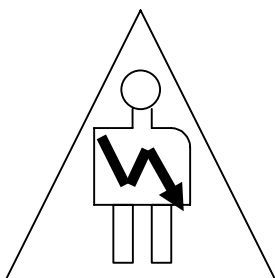
Never attempt to modify the equipment in any way.

In order to ensure optimum performance of your RCV2, select the setup location carefully, and make sure the equipment is used properly. Avoid setting up the RCV2 in the following locations:

1. In a humid or dusty environment
2. In a room with poor ventilation
3. On a surface which is not horizontal
4. Inside a vehicle such as a car, where it will be subject to vibration
5. In an extremely hot or cold environment

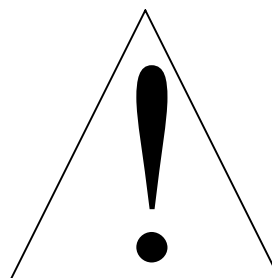
## WARNING!!

To prevent fire or shock hazard, do not expose this appliance to rain or moisture

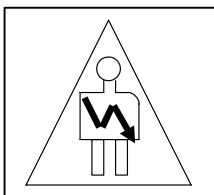


### CAUTION

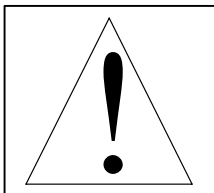
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK,  
DO NOT REMOVE COVER (OR BACK).  
NO USER-SERVICEABLE PARTS INSIDE.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with the arrowhead symbol superimposed across a graphical representation of a person, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure; that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## **CE NOTICE**

Marking by the symbol  $\mathbb{C}$  indicates compliance of the device to the EMC (Electromagnetic Compatibility) directive and to the Low Voltage directive of the European Community. Such marking is indicative that this device meets or exceeds the following technical standard:

- EN 55022 "Limits and Methods of Measurement of Radio Interface Characteristics of Information Technology Equipment."

A "Declaration of Conformity" in accordance with the above standard has been made and is on file at Doremi Labs, Europe, Valbonne, France.

## INTRODUCTION

Thank you for your RCV2 purchase. The RCV2 is a convenient remote control box that provides you with all the front panel capability of the V1 video disk recorders.

All functions available on the front panel of the V1 are available on the RCV2-9P except for the head phone audio jacks and the LCD video display.

The RCV2 can control up to two single channel V1 decks, two V1-MP2 decks with simultaneous record and play capability or one dual-channel V1 deck such as the V1-Ux2, V1x2, or V1-MP2-1r2p.

This manual provides you with installation, connection and general operation instructions. There is also a section on the RCV2's "controller menu". For information on the V1 deck's "Menu" and "Option Menu" settings please consult your V1 User Manual.

## 1 RCV2 Connection

Connect the AC receptacle to the back of the RCV2 and then connect to an AC outlet.

Connect your RS-422 cable to the connector labeled RS-422 (1-2) on the back of the unit. This will be your Channel One control. Connect this cable to the RS-422 connector on the back of your V1.

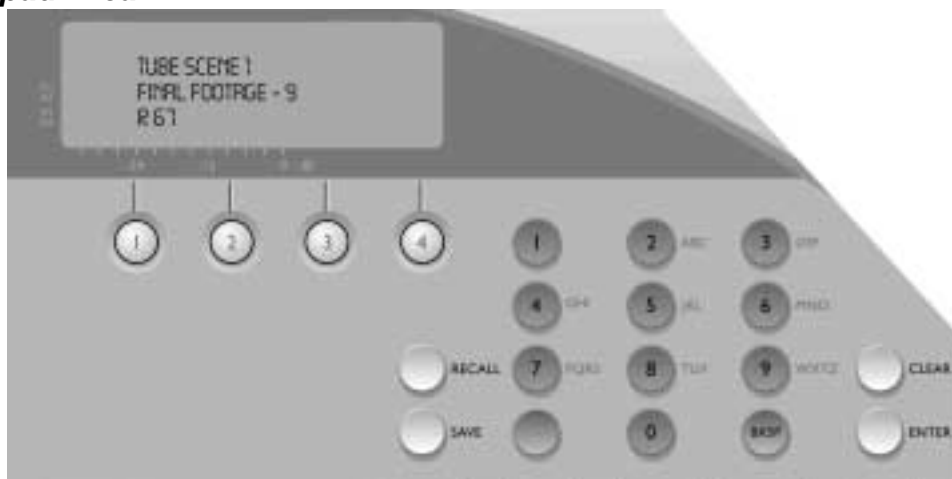
Connect your second RS-422 cable to the connector labeled RS-422 (3-4) on the back of the unit. This will be your Channel Two control. Connect this cable to the RS-422 connector on the back of your second V1. Or video channel two RS-422 of your dual-channel V1 deck.



## 2 RCV2 Operation

The RCV2 face features a keypad, menu controls, transport controls, and an LCD display.

### 2.1 Keypad Area



1, 2, 3, 4 (Channel Selection): If your RCV2 is connected to more than one channel use these buttons to switch between the different channels. For control of a single channel V1 deck, channel "1" should always be selected.

Reset the RCV2: To reset the RCV2 without disconnecting the power. Hold any of the channel buttons and press clear.



**ALPHA-NUMERIC KEYPAD:** This keypad is used to enter numeric data such as time code addresses, in and out points, locate points, etc. To enter data, simply begin typing the numbers and the display will automatically overwrite. To abort an operation, press the **ESCAPE** key. The display will revert to its previous setting. The **BKSP** (Backspace) key can be used to correct typing errors. The keypad can also be used to name video clips (segments) by using the corresponding letters. *(This Feature is not yet available)*

**RECALL:** Recall a saved video clip.

**SAVE:** Save a video clip into a memory location number or name.

**CLEAR:** Clears the display to enter new data.

**ENTER:** Press after selecting a clip to play. Also used in the copy command.

## 2.2 Menu Controls and Jog/Shuttle



**IN:** Select the In point for a video segment.

**OUT:** Select the Out point for the video segment.

**GOTO:** To locate to a specific frame (field) from the V1 front panel, enter the time code location numbers from the numeric keypad and press **GOTO**.

**ESCAPE:** This is the escape key. Press it when you want to exit the menu mode.

**OPTION:** Selects the options menu. Hold down option key and press the MENU button.

**TOGGLE:** Use this key to change the value within most menus. Hold the OPTION key and press toggle to change the values downward.

--:	Move backward in the submenu modes. Also locates one field or frame back from the current position. This depends if you are in frame or field mode
++:	Move forward in the submenu modes. Also locates one field or frame forward from the current position. This depends if you are in frame or field mode
MENU ▲ ▼ :	Pressing one of these keys will engage the menu mode. Pressing the ESCAPE key will return the V1 to the time code display mode. Scroll forward and backward through the menu by pressing the ▲ or ▼ keys

**JOG/SHUTTLE WHEEL FUNCTIONS:** Activates the following function when lit:

JOG:	In Jog mode, the rotation of the Internal wheel will generate "Jog" steps in forward or reverse.
SHUTTLE:	In Shuttle mode, the angle of the external wheel from its initial position will control the shuttle speed with 7 different values in each direction: <b>10%, 20%, 48%, 100%, 200%, 500%, 1000% in &gt;&gt; or &lt;&lt;.</b> The value used and the direction (">>", "<<") is displayed on the bottom line of the LCD during the shuttle operation.
SLO MO:	Activates the external wheel for slow motion control. The slow motion is forward only with predefined values of <b>0%, 3%, 10%, 15%, 20%, 26%, 30%, 39%, 48%, 60%, 65%, 75%, 81%, 87%, 93%, 100%</b>  V1 decks use a line shifting inter-field processing technique for smoother motion during slow motion mode on standard definition machines.

## 2.3 Transport Controls



The V1 standard transport controls are:

REC	Record control button. This key is used in several ways described later in this menu.
STOP	Stop control button. The STOP key will cause the V1 to stop any transport control (Play, record, rewind, fast forward).
PLAY	Play control button. If the active drive has recorded material, pressing the PLAY key will start playback from the current location at normal speed and the green LED will go ON.
REW	Rewind control button with a speed of 40 times normal. When the rewind is close to the beginning of the recording, the speed is slowed down to normal until it reaches the start. Pressing this key again will increase the speed. There are three levels REW+REW+REW.
FF	Fast forward control button with a speed of 40 times normal. When the fast forward is close to the end of the recording, the speed is slowed down to normal until it reaches the end. Pressing this key again will increase the speed. There are three levels FF+FF+FF.

## 2.4 LCD Time Code Display



The first line of the Time Code display shows the time location of the video material using the following format: "**HH:MM:SS:FF F1/F2**" where "HH" represent the hours from 00 to 23, "MM" represent the minutes from 00 to 59, "SS" represents the seconds from 00 to 59, "FF" represents the frames from 00 to 24 in PAL and 00 to 29 in NTSC, "F1/F2" represent the field: "F1" for odd fields and "F2" for even fields. This display will show either **Absolute Time** or **Time Code** depending upon what the user has selected in the "Time Mode" (01) Menu. The display also shows Drop/NonDrop information; "." Means NonDrop and ";" means DROP frame. Field one shows "." Field two shows "." or ";"

The second line displays the following:

- ◆ When the RCV2 starts-up, the bottom left displays the version of the RCV2 software installed on the flash EPROM (example, V .71 when version .71 is installed), then **No Disk** and **Scanning** messages will alternate on the left side and **Stop** is displayed on the right side until a valid drive is recognized on the SCSI bus of the V1, in such case **No Disk** will disappear and only **Stop** will be displayed indicating that the V1 is now ready to access the drive. If **No Disk/Scanning** is still displayed even though a disk was installed, the V1 did not recognize the disk. Check for SCSI ID conflict or check the MD settings in the **Option Menu**.

- ◆ During transport controls, the current operation is shown on the right side of the display: **PLAY, STOP, REWIND, FORWARD, RECORD, JOG, SHUTTLE, VAR..**  
("VAR" is indicated during play in chase on LTC/MTC or in variable speed from RS422)
- ◆ During shuttle movement, the shuttle speed is shown as :  
If forward shuttle : ">> **xx %**" with xx % = 10%, 20%, 48%, 100%, 200%, 500%, 1000%  
If reverse shuttle : "<< **xx %**" with xx % = 10%, 20%, 48%, 100%, 200%, 500%, 1000%
- ◆ During segment playback, the remaining time up to the OUT point is shown as "**ssss : MM.SS**", where "sss" is the number of the segment played from 001 to 2047, "MM.SS" is the remaining time up to the OUT point of the segment played in mn:sec
- ◆ During formatting, the message **Formatting...** is shown. During initialize, the message **Initialize** is shown. During drive copy, the message **Copying...** is shown, once done, **Copy Complete** is shown and if source drive has invalid recording, **Bad Segment** or **Copy aborted** is shown.
- ◆ During Stripe the message says initialize.

During the drives mounting (insert) and un-mounting (eject), the message **No disk** is displayed.

## **2.5 Disabling the RCV2 control capability**

To disable the RCV2 and prevent accidental operation, hold the OPTION button then press ESCAPE. Press again to unlock the RCV2. When the RCV2 is in "disable mode" the letters "DIS" will be displayed in the top right corner of the 4 line LCD.

### 3 Controller Menu

To call up the Controller Menu hold the ESCAPE button and press the menu up  $\hat{\uparrow}$  arrow key (or down key  $\hat{\downarrow}$ ). Use the arrow keys to scroll through the menu selections. The **TOGGLE** button changes the parameters for the selected menu. Press **TOGGLE** to increase the parameter and hold **OPTION** and **TOGGLE** to decrease the parameter.

The RCV2's Controller Menu functions are described below:

- |      |                       |  |
|------|-----------------------|--|
| (00) | <b>RCV2 Version</b>   | Indicates the current firmware version number for the RCV2.  |
| (01) | <b>Video</b>          | Use the TOGGLE button to switch the front panel LCD monitor "on" or "off". Default is "on"   |
| (02) | <b>Composite Out</b>  | <b>For V1-UHD only.</b> Switches the composite output on the rear panel of the V1-UHD "on" or "off". Default is "on".  |
| (03) | <b>Burn In Window</b> | When ON, the burn in window will be enabled on the confidence LCD monitor (it needs to also be enabled in the Option Menu setting).<br>Default is "on".  |
| (04) | <b>Delay Mode</b>     | <p><b>Dual-channel V1 configured for single drive operation or V1-MP2 only.</b><br/>This is used for broadcast delay to define the time delay between the recorder and the player(s). Ensure that the V1 is not recording.</p> <p>Select the player (channel 2) and enter the delay time desired and press ENTER. The record and play channel will locate to 0 time code, the recorder will start recording and the player will wait for the time set for delay to elapse, and will then start playing back automatically.</p> <p>The transport controls on the player (channel 2) will be disabled when the time delay function is engaged. To stop the delay function select the recorder (channel 2) and press STOP.</p> <p>Default is "off".</p> |
| (05) | <b>Preroll</b>        | Used in conjunction with Slomo Mode (See below). When a time value is entered the RCV2 identifies the pre-roll time from the location point. This helps to compensate for the delay between the action being recorded and the push of the save button.   |
| (06) | <b>Slomo Mode</b>     | <p><b>Dual-channel V1 configured for single drive operation or V1-MP2 only .</b><br/>Used for sports slow motion replay applications. When ON, the RCV2 operates like a slow motion controller.</p> <p>Select Channel 1. Go to the start of the disk by pressing CLEAR then press GOTO, then start recording.<br/>Select Channel 2 and press the Record button to go in EE mode.<br/>When you see an event worth marking press SAVE, this will increment the Clip number and save the IN point of the clip</p>   |

minus the Preroll value setting. (see Preroll above)

Every time you hit SAVE, the clip number will increment and the new time code will be captured.

If you want to recall a specific segment press the ++ or – buttons until you see the desired clip number displayed, then press RECALL. (You can do this while in EE mode)

When you press SloMo, the unit will start playing from that point at the slow motion speed selected by the Shuttle wheel.

To stop and go back in EE, press STOP followed by the RECORD button.

Default is “off”.

(07)            **Gang Mode**        **Dual-channel V1 only or control of two single channel V1 decks.** When ON, it will insure that both channels are always at the same time code location. Used to synchronize the recording and playback operation of two channels. Default is “off”.

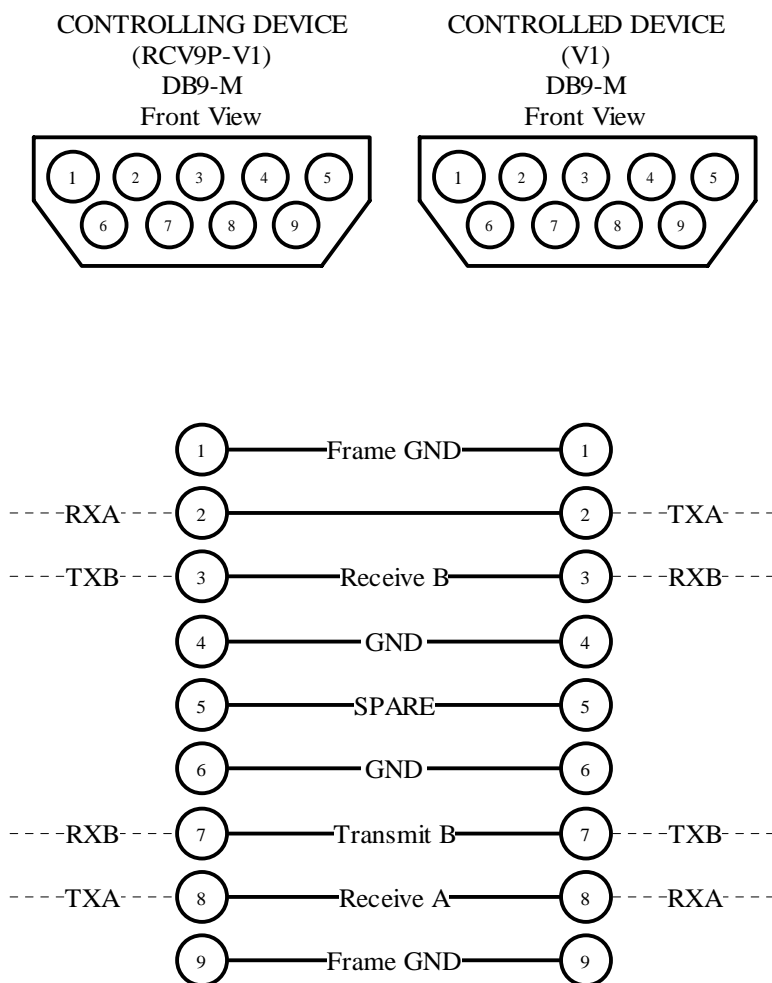
(08)            **4224 Clip Mode**        **Dual-channel V1 only or control of two single channel V1 decks.** For applications such as logo insertion plus key. This mode was created so people can record Logo plus Key separately, then find the in points and make clips that are locked together.

In this mode the RCV2 will insure that all clips are created with the same duration on both channels, the only distinction is that the IN and Out points will be different.

Define the IN and OUT on Channel 1, then define the IN only on channel 2 and hit SAVE clip# ENTER. The RCV2 will automatically calculate the duration from channel 1 and create an equal length clip on channel 2. When you RECALL clip# ENTER, the unit will play both clips synchronously even if they don't have the same start time. Default is “off”.

## 4 Wiring Diagrams and Pinouts

### 4.1 Wiring of the standard RS422 Cable



## 5 Updating the RCV2 firmware with the VUploader software

All silver V1 decks have two firmwares, one for the V1 deck (V1 firmware) and one for the front panel or remote controller (RCV2 firmware). All silver V1 decks have two firmwares, one for the V1 motherboard and another for the front panel (the RCV2).

### 5.1 Check your RCV2 firmware version

Enter the Controller Menu by holding the **ESCAPE** button and pressing **MENU**. Scroll to *Firmware*.

### 5.2 The VUploader utility

The RCV2 can be upgraded using the VUploader utility version 1.08 or higher. Download the VUploader utility from [www.doremilabs.com](http://www.doremilabs.com) in the support page.

Connect the 9pin cable between the RCV2-9P port labeled RS422 (1-2) (do not use the port labeled RS422 (3-4)) to any of the ports on the back panel of your V1 deck.

Check that your V1 is running firmware version 4.16c or higher. If not use VUploader to upgrade it first.

Power up the unit while holding the Channel 1 button under the 4 line LCD display, you should see a message saying "Flash mode"

Run VUploader. For detailed instructions see the VUploader README file that comes with VUploader.

When you receive the message from VUploader asking to select a port, choose the RS422 port that you connected to on the back of the V1.



## 6 Addendum